

REMARKS/ARGUMENTS:

CLAIMS:

Claims 1-8 were allowed and have not been changed.

Claims 9 and 20: PTO rejected claims 9 and 20 as being anticipated by Allison (4,065,225), stating that “Allison discloses a co-axial multi-rotor wind turbine having a counterweight 12 forward of a pivot point serving to at least partially counterbalance a downwind section of the driveshaft 32 and its attached rotors.”

Applicant replies:

- Allison is not as simple as it looks at first glance: Allison’s primary and secondary rotors 12 and 14 each drive one of two separate and complicated multi-component, pitch-controlled multi-hub and segmented driveshaft assemblies, which in turn drive two separate gearboxes 20 and 30, that drive third and fourth driveshafts 22 and 32, which finally turn a generator 24. Each rotor may be stopped independently by its own disc brake (column 2 lines 3-6), and the entire secondary rotor 14 and associated hardware may even be eliminated within the scope of the invention (column 4 lines 65-68). The idea that Allison’s 2 rotors are approximately co-axial is suggested by a side view, but not required by the design, nor verified by the text or other views. They certainly are not mounted on the same driveshaft.
- Applicant interprets that the PTO is calling Allison’s primary rotor 12, “a counterweight 12” since that primary rotor is located forward of a pivot and can be assumed to have positive mass.
- Applicant points out that Applicant’s own issued U.S. Patent 6692230, “Balanced, High Output, Rapid Rotation Wind Turbine” is based on balancing a downwind section 50 of a driveshaft with rotors, by an upwind section 49, also with rotors. In the now-established language of this issued patent, this upwind section is acknowledged to counterbalance the downwind section, but is not specifically called a “counterweight”, unless weight is specifically added to the driveshaft, for the sole purpose of providing weight. The second embodiment of that patent features a “ballast counterweight 67, mounted to the upwind section 49 of the driveshaft” or a “more robustly constructed” upwind section 49 of the

driveshaft, so as to be naturally heavier. (column 8 lines 35-40), illustrated in Fig. 9, and listed in claim 27 of that patent.

- Therefore Applicant posits that closer scrutiny of Allison, combined with a proper continuation of the nomenclature now established as valid in this specific art and subclass, in the U.S. patent system, to describe this general type of turbine, indicate that an upwind section of the driveshaft may be acknowledged to counterbalance a downwind section, while remaining distinguishable from a named counterweight. Note, however that there is no absolute requirement for this distinction, since the second embodiment of U.S. 6692230 indeed describes an upwind section made intentionally heavy, yet this embodiment could also include the separately described “ballast counterweight 67”. Note also that the “counterweight means” of claim 27 is claimed separately from, and in addition to, the requirement that the driveshaft be “projecting in two opposing directions” from the bearings cited in claim 16, from which claim 27 depends.
- Applicant points out that Applicant’s own U.S. Patent Application 10/781,213 (current status, notice of allowance received, issue fee and publication fee paid) also features such upwind section with attached rotors.
- Applicant has therefore amended claims 9 and 20, adding the modifying phrase “at least part of said counterweight not co-rotating with said turbine” to claim 9 and adding the word “non-rotating” to describe the massive components of claim 20, to distinguish over Allison and over Applicant’s own prior art patents mentioned above.

Claims 10-19: PTO objected to claims 10-19 as being dependent upon a rejected base claim (9), but allowable if rewritten in independent form...

Applicant requests that if previously rejected base claim 9 is now in condition for allowance, dependent claims 10 – 19 also be allowed.

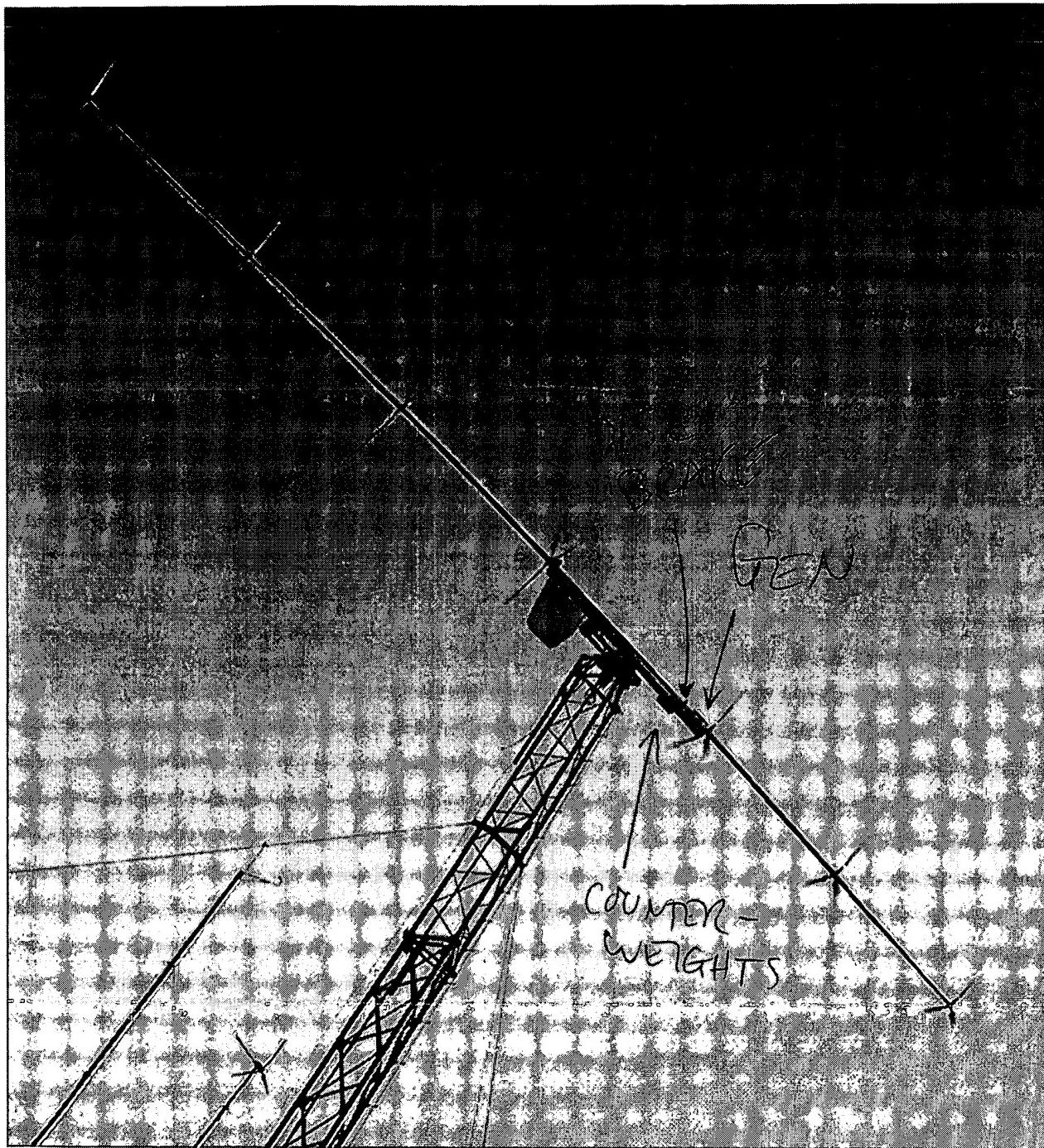
No new matter has been added.

Thank you very much. Sincerely,



Douglas Spriggs Selsam December 19, 2005

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Left: Applicant's actual prototype, funded by the California Energy Commission, with brake, generator, dedicated counterweights, and massive parts of the support frame located upwind of a central pivot, counterbalancing the downwind section of the driveshaft and its attached rotors.